



Gyro Compass System

Standard 22





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Standard 22 is the most popular gyro compass in the market – due to its performance and reliability.

Since its market introduction more than 7800 Standard 22 have been sold. Standard 22 uses sophisticated gyro compass technology based on 100 years of experience. Operational safety was dramatically increased due to a patented data transmission technology that completely replaces the use of slip rings.

The new Standard 22 combines proven technology and long maintenance periods with most advanced features. A secure investment in your ship – for a long time.

Features

Besides the main function as a heading sensor, the Standard 22 gyro compass system offers many features that provide additional value and make the day-to-day work easier. The gyro compass Standard 22 comes with automatic speed / latitude error correction. Values for speed and latitude are provided by sensors or entered manually via the operator unit.

When using «Quick Settling» mode, the heading information is provided within just one hour after switching on.

The integrated heading monitor compares the heading information from up to four different compasses. An alarm is given if a user-defined threshold is exceeded.

In case of a gyro compass system alarm, the system switches automatically to another compass as defined by the user. The central alarm reset function allows a remote acknowledgment of audible alarms meaning that an audible alarm of the Standard 22 can be muted directly at the operator unit or remotely via a central alarm panel.

New Standard 22 contains an independent transmitting magnetic compass (TMC) path. A failure in the compass system does not affect the processing of the magnetic heading. With this function, various flag state authorities do no longer require an optical bypass for the magnetic compass on board of the vessel resulting in cost savings for the ship yard and the ship owner.

The new individual speed error correction function ensures that a failure in a log or GPS receiver only affects the heading of one gyro compass. Thus, subsequent systems such as Dynamic Positioning Systems are able to detect a heading error caused by an incorrect latitude or speed information. Operators can quickly determine the root course of the incorrect heading information.

Standard 22
gyro compass



Approved Technology

The gyro compass Standard 22 has been type approved in accordance to the International Maritime Organisation (IMO) standards. In addition the Standard 22 system has been approved to the High-Speed Craft Code and as a rate-of-turn sensor with an accuracy according to IMO.

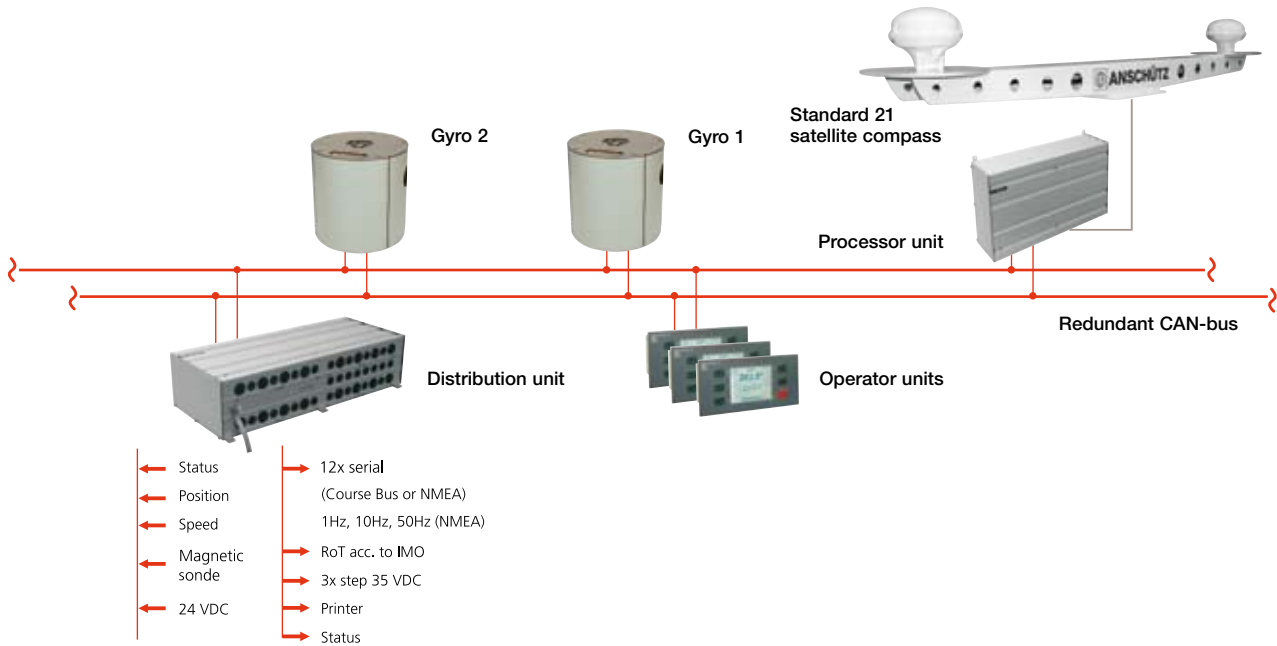
Products

The Standard 22 gyro compass is a modular system that was designed to meet the individual requirements of our customers. The system consists of the gyro compass, an operator unit and a distribution unit. Up to three gyro compasses can be connected to a system. A magnetic compass, the Standard 21 satellite compass and an external rate-of-turn gyro can be integrated as additional sensors.

Raytheon Anschütz also offers a fully redundant gyro compass system compliant to DNV NAUT-AW, NAUT-OC, and NAUT-OSV. This system consists of 2 gyro compasses, 2 operator units, 2 distribution units and one change-over unit. No single failure in this system will cause loss of heading information to the connected equipment.

Accessories

- Self aligning steering repeater with source indication
- Self aligning bearing repeater with source indication
- Digital repeater
- Multi Display
- Different casings for IP44 and IP56
- Course and rudder angle printer
- Course transducers for retrofit solutions



Operator unit



Steering repeater compass

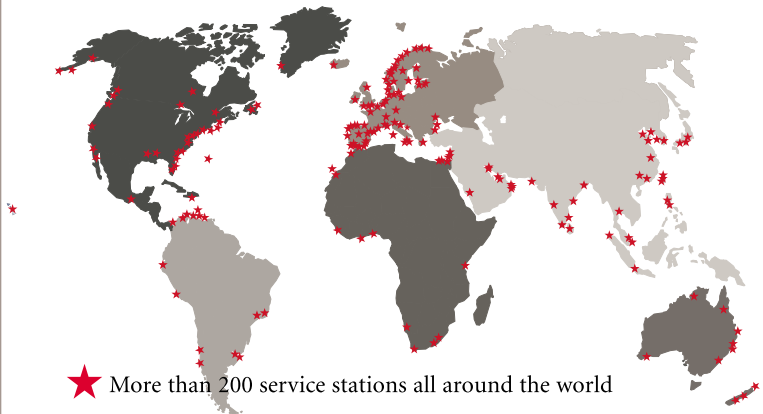


Distribution unit



Benefits

- High accuracy of 0.1 degrees
- Independent transmitting magnetic compass (TMC) path
- Individual speed error correction
- Quick settling reduces the settling time to 1 hour
- Manual and automatic speed / latitude error correction
- Compass monitor and selector with automatic switch-over (configurable)
- Central alarm reset
- Integration of magnetic compass, Standard 21 satellite compass and external rate-of-turn gyro
- Short installation time and long maintenance periods
- Rate-of-turn gyro with an accuracy according to IMO
- IMO approved for standard and High-Speed Crafts
- Modular product range to meet individual requirements – from a single gyro compass to the fully redundant gyro compass system
- Integrates seamlessly into your system environment due to a multitude of interfaces and formats



Technical Data

Accuracy

Settle point error $\pm 0.1^{\circ}$ secLat., RMS
 Static error $\pm 0.1^{\circ}$ secLat., RMS
 Dynamic error $\pm 0.4^{\circ}$ secLat., RMS
 (periodic roll and pitch+horizontal acceleration)
 secLat.=1/cosLatitude

Supply voltage

24 V DC (18 – 36 V DC)

Power consumption

80 W to 140 W (start-up) sensor unit
 36 W distribution unit
 6 W operator unit
 7 W per analogue repeater

General data

Permissible ambient temperature
 Operation -10° C to $+55^{\circ}$ C
 Storage -25° C to $+70^{\circ}$ C
 without supporting liquid
 Settling time 1 h ($< 3^{\circ}$) with
 «Quick settling»
 Max. rate of follow-up 100 %/s
 Permissible roll
 and pitch angle $\pm 45^{\circ}$

Signal outputs

- 12x RS 422 individually configurable
 as Course Bus or NMEA
- 1x RS 232C for course printer
- Rate-of-turn ± 10 V DC
 Rate-of-turn 30°, 100°, 300°

Alarms

Built-in alarms power failure, gyro failure,
 system failure
 Alarm outputs potential-free relay contacts,
 bi-directional central alarm
 reset

In accordance with

IMO A.424(XI), A694(17), A.526(13), A.821(19),
 MSC.97(73), MSC.36(63), EN/IEC 60945,
 EN/ISO 8728, ISO 16328, EN/IEC 62288,
 EN/IEC 61162

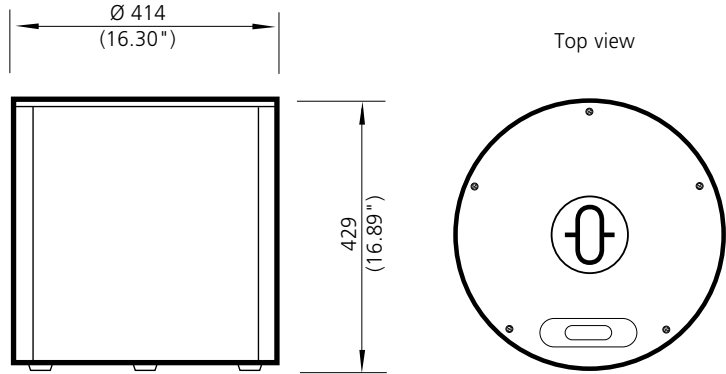
Weight

Master compass 17.5 kg
 Distribution unit 7.5 kg
 Operator unit 1.5 kg

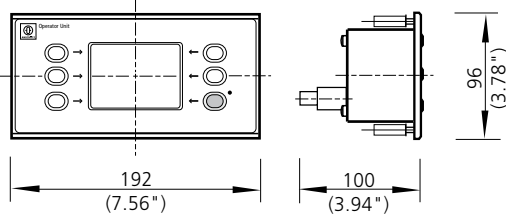
Type of enclosure acc. to IEC/EN 60529

Gyro compass IP 23
 Operator unit IP 23 / IP 56 front sided
 Distribution unit IP 22

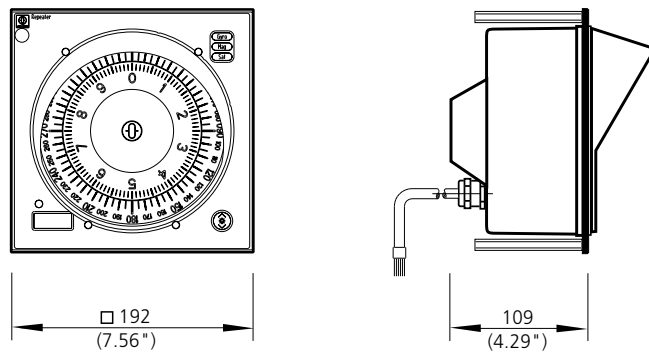
Standard 22 gyro compass



Operator unit



Steering repeater compass



Distribution unit

